SOFTWARE REVIEW

VA-CALC(S) by Psion

The spreadsheet type programs (Visi-calc and its clones) are one of the most popular utilities for microcomputers for business and home financial use. A large part of a small businessperson's time is spent processing columns of figures on sales and expenses to determine whether or not he has made (or is projected to make) a profit. Software to take the tedium out of this work can be quite appealing.

VU-CALC is the "official" T/S entry into this field. I should say entries since there are 2 programs marketed under the same name. Both are produced by Psion. The first VU-CALC (I'll call it V1) is written entirely in BASIC. It may be slightly more adaptable since you can vary the size of the numbers that are entered and the size of the displayed portion of the spreadsheet. Only a small portion of the resulting spreadsheet is displayed. The full size of the resulting table varies from 20x20 to 32x32.

The other VU-CALC (V2) is written in machine code and as a result it is much faster handling. It is much easier to enter names, numbers and formulas. Its grid size is a fixed 36 (across) by 26 (down). It can also handle larger number processing formulas.

There are packaging differences between the programs I've seen marketed as IX81 software. I have not seen the T/S VU-CALC so I don't know whether it is V1 or V2 (or V3).

Most of my experience is with V2. test it I entered the figures for hypothetical small business. top I entered catagories for expenses (e.g. rent, inventory, salaries, etc.) income and cumulated profit or loss. These figures were projected month by The power of the program comes month. in being able to make projections by varying the numbers and formulas. For example, I can ask what will be my break even point if sales will grow by 5% month. Once my spreadsheet is set up I can change the formula for rate of change in sales and answer this question in seconds. Previously it may have taken hours of calculations to get this answer.

I have never used Visi-calc or any of the Visi-clones. People who've used them have told me that VU-CALC is not as powerful or adaptable. The spreadsheets are not as large and the formulas & commands are limited in comparison. However, I am enthusiastic about VU-CALC(s). It is perfectly adequate for the home and many small businesses. Used properly a small businessperson will be able to afford an IBM PC in no time.

Joel Brody

5 1000/2000 USERS				
NEXT MEETING				
	B L	VEST RANCH IBRARY	UNIVERSITY SAN PABLO AVE.	
			BERKELEY	
	SACR	AMENTO C	SAN FRANCISCO	2
	Januar West E	y 20, 1983 Branch Ber	Meeting starts 7:30, keley Library	P
BAZUG 83 READER SURUEY ************************************				
ZIP CODE PHONE NUMBER: () -				
	RDWAF	RE: TIME> ZX/81 ZX/80 MIGRO 1K. RA 2K. RA 4K. RA 16K. R	(/SINCLAIR ()	
		PRINT	ER ()	
## ME	***** MBERS	********* HIP - SUE	****************************	4.7
	()		EMBER OF BAZUG	
	10 To 12 No.	A MEMBER	OF BOZIG OND	

- () I WOULD LIKE TO BECOME A MEMBER OF BAZUG AND RECEIVE THE NEWSLETTER
- () I WOULD ONLY LIKE THE NEWSLETTER AT A LOWER ASSOCIATE MEMBERSHIP FEE
- () SEND NEWSLETTER ONLY IF FREE
- () PLEASE STOP SENDING NEWSLETTER

PORTIONS OF THIS NEWSLETTER WERE PRINTED ON THE CAI/P40 PRINTER. THANK YOU JACQUES LAUFER FOR ALL THE PAPER YOU LET US WASTE.

ROBOTEK_ Computer Systems

TOM KILPATRICK 10545 B SAN PABLO EL CERRITO, CA 94530

(415) 524-3730

A NUMBER OF ARTICLES IN THIS NEW SLETTER HAVE BEEN WRITTEN WITH THE *WORD JUGGLER* PROGRAM FOR THE ZX81. THE PROGRAM COMES FROM THE BOOK *THE PROGRAM COMES FROM THE BOOK *THE SINCLAIR ZX81: PROGRAMMING FOR REAL APPLICATION S* BY RANDLE HURLEY (AVAILABLE FROM THE BAZUG LIBRARY). THE PROGRAM IS IN BASIC SO IT IS A BIT SLOW, BUT IT CAN EASILY KEEP UP WITH ME WHEN I HUNT AND PECK ON MY MEMBRANE KEYBOARD. *WORD JUGGLERS* EDITING FEATURES CAN BE IMPROVED, BUT IT IS A USEFUL BIT OF SOFTWARE THAT HAS TAUGHT ME QUITE A BIT ABOUT WORD PROCESSING. IT IS OBVIOUS THAT A FASTER MACHINE CODE PROGRAM WITH LINE JUSTIFYING CAPABILITIES AND BETT ER EDITING FEATURES WOULD BE VER Y USEFUL.

BRING ALONG A TAPE AND I WILL BE HAPPY TO GIVE YOU A COPY OF THI S PROGRAM AT THE NEXT MEETING.

THE DECEMBER BYTE MAGAZINE REPOR
TS SOME INTERESTING NEWS ABOUT
THE COMPUTER PRICE REVOLUTION LE
D BY THE T/S LINE. CASIO MAY BE
INTRODUCING A \$63 PERSONAL COMPUTER IN JAPAN. TWO OTHER JAPANE:
SE COMPANIES, NEC AND PANASUNIC,
HAVE CHANGED THERE PLANS BECAUSE
THE T/S 1000 HAS TAKEN SALES AN
AY FROM COMMODORE, TI AND ATARI.
BOTH FIRMS WERE ABOUT TO INTRODU
CE MACHINES IN THE \$300-\$500 RAN
GE, BUT THEY HAVE DECIDED TO RED
ESIGN THESE COMPUTERS TO LOWER
THEIR PRICE BEFORE THEY ARE RELE
ASED. SANYO EXPECTS TO MARKET A
COMPUTER NEXT AUGUST THAT WILL
COMPETE WITH TIMEX/SINCLAIR.

JOEL BRODY

its almost here

IMEX REP AT NEXT BA *BIG NEWS FROM *SPECTRUM (T/S 2000 BAZUG MEETING OM TIMEX* IN APRIL* *SPECTRUM (T/S 2000) IN APRIL*

SAM BARRON, TIMEX COMPUTER CORP.
DISTRICT SALES MGR. FOR N. CAL.,
WILL BE AT THE JAN. 20 BAZUG
MEETING. SAM WILL BE HAPPY TO
ANSWER QUESTIONS AND MAY BE ABLE
TO DEMONSTRATE SOME NEW HARDWARE
THERE IS A GOOD CHANCE HE CAN
DEMONSTRATE THE NEW T/S THERMAL
PRINTER. THE REALLY EXCITING
POSSIBLITY (AND I EMPHASIZE POSS
IBIITY) IS THAT HE MAY HAVE A T/ ************

TREASURERS REPORT -----

ON JANUARY 1, 1983 THE TREASURER HELD \$45.17. IT DUES PAYING TIME AGAIN. A DECISION WAS MADE AT THE LASS MEETING TO MAKE JANUARY AND SPECIAL DISCOUNT PERIODS FOR MONTH MEMBERSHIPS. SO LONG YOUR MEMBERSHIP PAYMENT IS RECEIVED BEFORE THE FIRST OF NEXT MONTH YOU RECEIVE 6 MONTH MEMBERSHIP FOR THE PRICE OF \$5 INSTEAD OF \$6. YOU MAY PETER TREASURER AT THE NEXT MEDING OR SEND \$5 ALONG WITH THE MEMBERSHIP SURVEY WITH CHECK MADE OUT TO W.B. BUCHANAN TO HE LAS JANG AS NG AS OF THE MONTHS OF 5, p

W.B. BUCHANAN 1648 PORTLAND BERKELEY, CA 94707

OF COURSE IN CONTINUING MAY DO SO. IF MONTH MEMBERSH EXPIRED SEE BRI THE 6/18/82 MEI RSE THOSE INTER NG TO PAY \$1 A IF YOU HAVE A RSHIP THAT HAS BRUCE (PAID AF MEETING). INTERESTED \$1 A MONTH AVE A SIX T HAS NOT AID AFTER EASY SAVE / AUTO-RUN

HERE IS A NEAT AND EASY WAY
TO SAVE PROGRAMS INSPIRED BY AN
ARTICLE I READ IN SINCLINK BY
L. E. SHEILDS. WHEN ADDED,
THESE LINES PROTECT VARIABLES
BY ALWAYS STARTING YOUR PROGRAM
FROM THE CORRECT ADDRESS. YOU
ALSO DO NOT NEED A REM STATEMENT
LISTING THE PROGRAM NAME; IT IS
PRESENT IN THE SAVE STATEMENT.
ENTER THE FOLLOWING LINES AT THE
END OF YOUR PROGRAM:

STOP (ONLY IF NEEDED*

"PROGRAM NAME

AA (THAT ADDRESS THAT STARTS YOUR PROGRAM CORRECTLY)

REMEMBER TO REPLACE XX, YY, ZZ, AND AA WITH THE APPROPRIATE NUMBERED ADDRESSES. IF YOUR PROGRAM DOES NOT NEED A STOP STATEMENT AS IN XX (SEE *) IT CAN BE ELIMINATED; EQUALLY YOU CAN ELIMINATE AN EARLIER, REDUNDANT STOP STATEMENT. HAVE FUN.

BRUCE BUCHANAN

Prices you won't believe!

The TIMEX SINCLAIR 2000™ computers give you the power to compute easily, efficiently an colorfully.

The TIMEX SINCLAIR 2000 computers are ready to expand your family's horizons in education, work, recreation, personal and

professional enrichment. With a contigretionsive library of exciting software, your TIMEX
SINCLAIR 2000 computer is sure to become
your family's entertainment/resource center.
There never was a better time to own a personal
color computer, because Timex offers two color
units ready for instant application in all areas of
family computing needs. The TIMEX SINCLAIR
2000 computers offer you a choice of 16K or 48K
Random Access Memory.

Both TIMEX SINCLAIR 2000 computers feature
color and sound, moving-key keyboard, and
high-resolution graphics ... all self contained
and easy to attach to your own color TV set.

Key features that make a T/S 2000TM your solid

Key features that make a T/S 2000TM your solid choice for joining the new frontier of home computing technology:

LOW PRICE — The T/S 2000 computers offer fully competing features at a price you expect from Timex.



S 2000 TO SHOW US. THE T/S 2
IS THE AMERICAN VERSION OF TH
SINCLAIR SPECTRUM. IT IS BEI
INTRODUCED THIS MONTH AT THE
SUMER ELECTRONICS SHOW IN LAS
GAS. IT IS SCHEDULED TO BE S
PED TO STORES IN APRIL. THE
CE HAS NOT BEEN ANNOUNCED, BU
RUMORS ARE THAT IT WILL BE VE
REASONABLE. THE 48K VERSION
BE ABOUT \$100 LESS THAN ITS
LISH EQUIVALENT. THIS WOULD
A REAL BREAKTHROUGH IN AFFORD
ILITY OF COMPUTING POWER. JF THE S BEING THE CON N LAS VE BE SHIP THE PRI J BUT MAY ENG BEI ABL

THE T/S 1000 WILL STILL BE SOLD.
THERE WILL BE A T/S 1500 WHICH
WILL BE THE T/S 1000 WITH 16K OF
INTERNAL MEMORY. THE SPECTRUM
CAUSED A ZX81 PRICE CUT AFTER IT
S INTRODUCTION IN ENGLAND.

SAM SHOULD BE ABLE TO GIVE US A LOT MORE DETAILS ON THESE DEVE LOPMENTS THAT A LOT OF US HAVE BEEN EAGERLY AWAITING. LETS GIV E HIM A WARM WELCOME AND SHOW OU R APPRECIATION FOR TIMEX SUPPORT OF USERS GROUPS.

COMMENTS ON <u>SQ</u> (Syntax Quarterly)

by Woody McPheeters

There was a surprise in my mail last week---the premier issue of 5Q. This was apparently a present from the Harvard Group, publishers of Syntax, and informal mimeo style monthly newslet-ter devoted to the ZX80 and ZX81. It's a big step up for the Group, in both firnat (glassy magazine) and style (tightly edited and written). I was much impressed with both its "Departments" (intended as regular features) and with the articles, especially with part one of a two part-er written by John Oliger and titled: Build Your Own EPROM Programmer & Centronics Printer Interface". Real praise is green and crinkly according to Heinlein, and I've just subscribed to the SQ.

The first installment of the featured "Department" on "Beginner's BASIC" cleared up a long standing confusion I wasn't even fully consciouw of--namely, the difference in meaning of "=" in algebraic equations vs. in LET statements (where it could be better translated as "means" or "now be", etc.) Also extended was my appreciation of the fact that BASIC variables are labels for physical memory addresses which are assigned and kept track of by program-ming features in the complete BASIC package.

However, back to the article on hardware by John Oliger, which has really refired my interest in the ZX81---the same interest which had really flagged when I found that noone, neither Sinclair nor anyone else, was going to publish a proper hardware manual for the ZX81. I am still willing to badmouth Sinclair for this omission, but that is another story.

He has apparently done, and now clearly presents instructions for doing, many of the important-to-me things I've wanted to do on the ZX81. He not only presents the hardware including etching

Complete, ready-to-use quiet printer immedi ately expands the use and application of any TIMEX SINCLAIR computer for hard copy print-outs at a remarkably low price Available

SOFTWARE REVIEW

GRIMMS FAIRY TRAILS: TIMEX
While looking for an adverture or
similation program that I hadn't seen
before I came across what sounded like a before I came across what sounded like a fantasy based adventure program from TIMEX. Grimms Fairy Trails at \$14.87 from KMART seemed to be a fair price. I loaded GFTRAILS at home and was at first disappointed to find instead of an adventure game TIMEX's version of PACMAN. The game has six levels of adventure game IIMEX's version of PAC-MAN. The game has six levels of difficulty and plays with a standard maze. If you reach the center of the maze and capture a life-giving crystal you receive one reprieve from being captured. The two fastest speeds are challenging enough to make the game interesting especially for children. (my brothers aged 23 to 31 will agree here.) layouts and instructions, but alsa software in BASIC, fully labeled and assembled source code, and checkout procedures For those who prefer not to etch, he will sell boards for his projects at reasonabls prices.(\$18 for motherboard, \$10 for circuit boards). His method of layout and assembly of motherboards is easy and ingenious, and I have never seen it before.

Part one of his two part article covers the printer part, the mother board, a power supply, and an interface which may be built if needed. The software in Part One includes: a BASIC printer driver, an ASCII Conversion and Copy routine, a hex loader, etc. His schematica look fine, his programs are well-documented, and my only criticism to date is that the power supply is short on features and will tend to run the 7805 regulator very hot.

Part Two is promised for the next issue. Meanwhile, I'll write him in the next few days after this meeting.

Mr. Bliger (as well as a software review in same issue) has all good things to say about Sinware Hot-Z from Sinware, Box 323, Dixon, NM 87527. This is a machine language program on cassette for \$19.95 which includes: a dissembler editor (and it will dissemble itself!); a machine language menitor; debugging facilities, and more. It sound like the first software that I'LL buy! Requires 16K minimum, is better with more.

Oliger also claims that his ZX81 will drive, WITHOUT BUFFER INTERFACE, his three 16K RAM boards, his two EPROM read boards, one printer port, and the EPROM programmer board. This I find hard to believe while wanting to believe believe me! (That is almost poetry...) Apparently the use of pull-up resistors and series resistors in the various line will do more for power than I've thought Some study here for me, and fun--and saving money too!

ANALOG

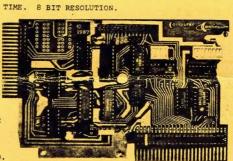
INTERFACE BOARD 8 channels A to D+DtoA

hast 2.5 µs A/D CONVERSION TIME.

8 CONTINUOUS ANALOG OUTPUTS 0-2.56V (0-5V W/EXT. V_{CC}) 8 ANALOG INPUTS 0-5V. ADDRESS PICKS CHANNEL. DIP SWITCHES SELECT MEMORY OR
I/O MAPPING AS WELL AS WHICH
BLOCK OF ADDRESSES ARE USED.
CAN USE ZX POWER SUPPLY.
UNIQUE DESIGN ALLOWS EASY
INTERFACING TO ANY ZBO CPU TYPE
MICROCOMPUTER AND OTHERS.
MANY MOUNTING OPTIONS TO ZX81.
FINEST BOARD. NEWEST CHIPS.
KIT \$180. ASSEMBLED & TESTED \$230.

301 16 th Ave

San Francisco, CA 94118



(415) 752 6294



by Woody McPheeters

There was a surprise in my mail last week---the premier issue of SQ. This was apparently a present from the Harvard Group, publishers of Syntax, and informal mimeo style monthly newsletter devoted to the ZX80 and ZX81. a big step up for the Group, in both firnat (glossy magazine) and style (tightly edited and written). I was much impressed with both its "Departments" (intended as regular features) and with the articles, especially with part one of a two part-er written by John Oliger and titled: Build Your Own EPROM Programmer & Centronics Printer Interface". Real praise is green and crinkly according to Heinlein, and I've just subscribed to the 50.

The first installment of the featured "Department" on "Beginner's BASIC" cleared up a long standing confusion I wasn't even fully consciouw of--namely, the difference in meaning of "=" in algebraic equations vs. in LET statements (where it could be better translated as "means" or "now be", etc.) Also extended was my appreciation of the fact that BASIC variables are labels for physical memory addresses which are assigned and kept track of by programming features in the complete BASIC package.

However, back to the article on hardware by John Oliger, which has really refired my interest in the ZX81---the same interest which had really flagged when I found that noone, neither Sinclair nor anyone else, was going to publish a proper hardware manual for the ZX81. I am still willing to badmouth Sinclair for this omission, but that is another story.

He has apparently done, and now clearly presents instructions for doing, many of the important-to-me things I've wanted to do on the ZX81. He not only presents the hardware including etching

Complete, ready-to-use quiet printer immediately expands the use and application of any TIMEX SINCLAIR computer for hard copy print-outs at a remarkably low price Available

SOFTWARE REVIEW

GRIMMS FAIRY TRAILS: TIMEX

While looking for an adventure or
similation program that I hadn't seen
before I came across what sounded like a
fantasy based adventure program from
TIMEX. Grimms Fairy Trails at \$14.87
from KMART seemed to be a fair price. I
loaded GFTRAILS at home and was at first
disappointed to find instead of an
adventure game TIMEX's version of PACMAN. The game has six levels of
difficulty and plays with a standard
maze. If you reach the center of the
maze and capture a life giving crystal
you receive one reprieve from being
captured. The two fastest speeds are
challenging enough to make the game
interesting especially for children.
(my brothers aged 23 to 31 will agree
here.)

layouts and instructions, but also software in BASIC, fully labeled and assemblad source code, and checkout procedure For those who prefer not to etch, he wil sell boards for his projects at reasonsble prices.(\$18 for motherboard, \$10 for circuit boards). His method of layout and assembly of motherboards is easy and ingenious, and I have never seen it before.

Part one of his two part article covers the printer part, the mother board, a power supply, and an interface which may be built if needed. The software in Part One includes: a BASIC printer driver, an ASCII Conversion and Copy routine, a hex loader, etc. His schematica look fine, his programs are well-documented, and my only criticism to date is that the power supply is short an features and will tend to run the 7805 regulator very hot.

Part Two is promised for the next issue. Meanwhile, I'll write him in the next few days after this meeting.

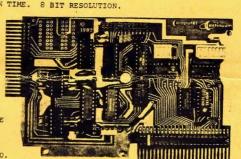
Mr. Bliger (as well as a software review in same issue) has all good things to say about Sinware Hot-Z from Sinware, Box 323, Dixon, NM 87527. This is a machine language program on cassette for \$19.95 which includes: a dissembler, editor (and it will dissemble itself!); a machine language menitor; debugging facilities, and more. It sound like the first software that I'LL buy! Requires 16K minimum, is better with more.

Mr. Oliger also claims that his ZX81 will drive, WITHOUT BUFFER INTERFACE. his three 16K RAM boards, his two EPRDM read boards, one printer port, and the EPROM programmer board. This I find hard to believe while wanting to believe (That is almost poetry...) believe me! Apparently the use of pull-up resistors and series resistors in the various lines will do more for power than I've thought. Some study here for me, and fun--and saving money too!



fast 2.5 µs A/D CONVERSION TIME. 8 BIT RESOLUTION

8 CONTINUOUS ANALOG OUTPUTS ADDRESS PICKS CHANNEL.
DIP SWITCHES SELECT MEMORY OR
I/O MAPPING AS WELL AS WHICH
BLOCK OF ADDRESSES ARE USED.
CAN USE ZX POWER SUPPLY.
UNIQUE DESIGN ALLOWS EASY
INTERFACING TO ANY Z80 CPU TYPE
MICROCOMPUTER AND OTHERS.
MANY MOUNTING OPTIONS TO ZX81.
FINEST BOARD. NEWEST CHIPS.
KIT \$180. ASSEMBLED & TESTED \$230.





1 301 16 th Ave San Francisco, CA 94118 (415) 752 6294